Pratyush Bindal

📞 +91-9897086464 ✉ pratyushbindal@hotmail.com in LinkedIn ⌗ GitHub

Education

Birla Institute of Technology and Science, Pilani   Aug 2022 - July 2026
Bachelor of Engineering in Computer Science (CGPA: 9.64 / 10.00)   *Hyderabad, Telangana*
- **Relevant Coursework:** Data Structures and Algorithms, Database Systems, Object Oriented Programming, Discrete Structures & Mathematics, Logic in Computer Science, Probability & Statistics, Linear Algebra

G. D. Goenka Public School   April 2018 - July 2022
High School (Class XII: 96.6% and Class X: 97.6%)   *Muzaffarnagar, Uttar Pradesh*

Experience

Summer Research Intern   May 2024 – July 2024
Indian Institute of Remote Sensing (IIRS), Indian Space Research Organisation (ISRO)   *Dehradun, Uttarakhand*
- Led a team of four in developing advanced computer vision models implementing Transformer-based models such as Grounding DINO and CNN-based models such as YOLO v8, v9 and v10 for detecting ships in the sea and automatic feature extraction of their images

Undergraduate Teaching Assistant - PHY F111 (Mechanics, Oscillations and Waves)   Aug 2023 – Dec 2023
Birla Institute of Technology and Science, Pilani   *Hyderabad, Telangana*
- Prepared reading materials relevant to the course PHY F111: Mechanics, Oscillation and Waves. Also, Helped in the smooth conduction of tests and quizzes and solved doubts of the students related to allotted study materials

Skills

Languages: C, C++, Java, Python, HTML, CSS, SQL, JavaScript, TypeScript, Prolog, Verilog HDL, Assembly
Technologies: TensorFlow, PyTorch, Spring Framework, React, SolidJS, Google Cloud Platform
Databases: NoSQL, PostgreSQL & SQL-based databases like MongoDB, Supabase, Oracle MySQL
Developer Tools: Postman, VSCode, IntelliJ, Eclipse, PyCharm, Android SDK, Anaconda, Git, Docker
Libaries: numpy, scipy, pandas, matplotlib, scikit-learn, keras, seaborn, openCV

Projects

Reinforcement Learning In Cybersecurity | *PyTorch, Python and related libraries*
- Implemented AE-SAC and Twin Delayed DDPG (TD3) Algorithms on the NSL-KDD Dataset for Intrusion Detection
- Established ML-based Intrusion Detection System on the NSL-KDD Dataset to map alert-attack relations
- Comparatively evaluated various ML-RL algorithms for Fraud & Anomaly Detection on MQTT & AWID3 datasets

BITSBids | *React, Spring Framework, Mongo DB, Maven*
- Developed ready-to-scale Full Stack Bidding Website exclusive to BITSians via Google OAuth2 Authorisation
- Applied Dynamic Price Updation, Multiple Bids Prioritisation, Anonymous Chat Client, and Filtered Product Search

StarWars Databank | *Typescript, SolidJS, Supabase, PL/pgSQL*
- Contributed to a DataBank Website for storing, analysing, and categorising information about the StarWars world
- Created Frontend using SolidJS & used PostgreSQL in Supabase for developing backend database system

Honours and Awards

- 100% Merit Scholarship Awardee (Awarded to Top 1% of the batch)
- 80% Merit-cum-Need Scholarship Awardee (Awarded to Top 3% of the batch)
- Among Top 255 students in IOQA 2020-21 organised by IAPT-HBCSE

Volunteership and Extracurriculars

Mathematics Mentor   Sept 2023 – Dec 2023
Academic Counselling Cell   *Hyderabad, Telangana*
- Mentored 1000+ students undergoing Mathematics I course at the institute

Research, Editorial and Events Member   Oct 2022 – Sept 2023
Ad Astra - Astronomy and Science Club   *Hyderabad, Telangana*
- Gained an insightful experience researching about recent advancements in Astronomy & Astrophysics